Green

**Dart Aerospace Ltd.**

Date: Wednesday, 11/21/2007 12:47:40 PM
User: Kim Johnston

# Process Sheet

| | | | |
|---|---|---|---|
| **Customer** | : CU-DAR001 Dart Helicopters Services | **Drawing Name** | : SADDLE FITTING, AFT (OUTBOARD/INBOARD) |
| **Job Number** | : 35917 | | |
| **Estimate Number** | : 10533 | | |
| **P.O. Number** | : N/A | **Part Number** | : D2573 |
| **This Issue** | : 11/21/2007 **S.O. No.** : N/A | **Drawing Number** | : D2573 REV E |
| **Prsht Rev.** | : NC | **Project Number** | : N/A |
| **First Issue** | : N/A **Type** : MACHINED PARTS | **Drawing Revision** | : E |
| **Previous Run** | : 34839 | **Material** | : N/A |
| **Written By** | : | **Due Date** | : 1/15/2008 **Qty:** 12 **Um:** Each |
| **Checked & Approved By** | : 07.11.21 | | |
| **Comment** | : Est: I As Per RevE 06-01-27 JLM | | |

**Additional Product**

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 1.0 | D6101007 | 7075-T7351 8.25X7.75X2.5 |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 12.0000 Each(s)
7075-T7351 8.25X7.75X2.5
Make from D6101-007 billet for D2573
Ensure that grain is along 7.75" length
Batch No: B31389 07/12/14 (12)

| | | |
|---|---|---|
| 2.0 | HAAS1 | HAAS CNC VERTICAL MACHINING #1 |

**Comment:** HAAS CNC VERTICAL MACHINING #1
Program Batch No. 35917 Double check by: BG

1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets 2-Machine Step No 2 per Folio FA051 and inspect per attached Dimension Sheets
3-Machine Step No 3 per Folio FA051 and inspect per attached Dimension Sheets
4-Deburr and remove all machining marks
5-Tumble to remove sharp edges.

SF 07/12/15

| | | |
|---|---|---|
| 3.0 | MILLING CONV. | CONVENTIONAL MILLING MACHINE |

**Comment:** CONVENTIONAL MILLING MACHINE
Machine keyway as per dwg D2573 & D2574 SF 07/12/15

| | | |
|---|---|---|
| 4.0 | QC2 | INSPECT PARTS AS THEY COME OFF MACHINE |

**Comment:** INSPECT PARTS AS THEY COME OFF MACHINE SF 07/12/15



Form: process

**Dart Aerospace Ltd**

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| **DATE** | **STEP** | **PROCEDURE CHANGE** | **By** | **Date** | **Qty** | **Approval** Chief Eng / Prod Mgr | **Approval** QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes (No) **DQA:** ✓ **Date:** 08/01/17

**QA: N/C Closed:** _____ **Date:** _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **DATE** | **STEP** | **Description of NC** Section A | **Corrective Action** Section B **Initial** Chief Eng | **Action Description** Chief Eng | **Sign & Date** | **Verification** Section C | **Approval** Chief Eng | **Approval** QC Inspector |
| A-12-18 | 2.0 | Employee Exceed the black 0.050" instead on 0.005," resulting in the saddle edges being too thin. R.C.: Human error | 07/12/17 | Scrap & destroy. Replace Qty 1 B 31389 | S.F 07/12/17 | | 07/12/17 | A-12-18 |
| 07.12.20 | 2 | Qty (1) part gouged during tumbling | 07.12.20 pc 01042 | SCRAP destroy and Replace | S.F 07/12/17 | | 07/12/20 | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

Date: Wednesday, 11/21/2007 12:47:40 PM
User: Kim Johnston

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services **Drawing Name:** SADDLE FITTING, AFT (OUTBOARD/INBOARD)

**Job Number:** 35917 **Part Number:** D2573

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 5.0 | QC8 | SECOND CHECK |
| | **Comment:** SECOND CHECK | SA 08/01/07 |
| 6.0 | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |
| | **Comment:** HAND FINISHING RESOURCE #1<br>Acid etch and Alodine as per QSI 005 4.1 | BR 08-01-07 (12) |
| 7.0 | POWDER COATING | POWDER COATING |
| | **Comment:** POWDER COATING<br>Powder Coat **SANDTEX GREEN**<br>(Ref: 4.3.5.1) as per QSI 005 4.3 | M 102316 (12)<br>BK 08-01-08 |
| 8.0 | QC3 | INSPECT POWDER COAT/CHEMICAL CONVERSION |
| | **Comment:** INSPECT POWDER COAT | M. L 08/01/07 (12X) |
| 9.0 | PACKAGING 1 | PACKAGING RESOURCE #1 |
| | **Comment:** PACKAGING RESOURCE #1<br>Identify and Stock<br>Location:_____ | 8/1/07 SD (12X) |
| 10.0 | QC21 | FINAL INSPECTION/W/O RELEASE |
| | **Comment:** FINAL INSPECTION/W/O RELEASE | (12) AD 08/01/11 |

Job Completion

U 08-

**Dart Aerospace Ltd**

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| **DATE** | **STEP** | **PROCEDURE CHANGE** | **By** | **Date** | **Qty** | **Approval** Chief Eng / Prod Mgr | **Approval** QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

**QA: N/C Closed:** _____ **Date:** _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **DATE** | **STEP** | **Description of NC** Section A | **Corrective Action** Section B | | | **Verification** Section C | **Approval** Chief Eng | **Approval** QC Inspector |
| | | | **Initial** Chief Eng | **Action Description** Chief Eng | **Sign & Date** | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

| DART AEROSPACE LTD | Work Order: | 35917 |
|---|---|---|
| | | |
| **Description:** Saddle, Aft Outboard | Part Number: | D2573 |
| | | |
| **Inspection Dwg:** D2573 Rev. E | | Page 1 of 1 |

Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

| | | | | Recorded Actual Dimensions | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Dim** | **Min** | **Max** | **Go/No Go Gauge** | **1** | **2** | **3** | **4** | **By** | **Date** |
| A | 0.438 | 0.443 | ~~DT8682~~ | .439 | .440 | 0.441 | 0.441 | | |
| B | 1.745 | 1.755 | | 1.750 | 1.748 | 1.749 | 1.750 | | |
| C | 3.495 | 3.505 | | 3.500 | 3.500 | 3.499 | 3.500 | | |
| D | 1.745 | 1.755 | | 1.750 | 1.748 | 1.749 | 1.750 | | |
| E | 7.990 | 8.010 | | 8.001 | 8.001 | 8.000 | 8.000 | | |
| F | 0.490 | 0.510 | | .501 | .502 | 0.503 | 0.501 | | |
| G | 0.257 | 0.262 | ~~DT8683~~ | .258 | .259 | .259 | .258 | | |
| H | 0.375 | 0.380 | ~~DT8684~~ | .377 | 375 | .375 | .375 | | |
| I | 0.490 | 0.510 | | .505 | .505 | .507 | .507 | | |
| J | 1.174 | 1.184 | | 1.179 | 1.180 | 1.180 | 1.180 | | |
| K | 0.558 | 0.578 | | .583 | .570 | .569 | .569 | | |
| L | 1.174 | 1.184 | | 1.179 | 1.180 | 1.180 | 1.180 | | |
| M | 1.365 | 1.375 | | 1.370 | 1.370 | 1.370 | 1.370 | | |
| N | 2.495 | 2.505 | | 2.500 | 2.500 | 2.500 | 2.500 | | |
| O | 4.119 | 4.129 | | 4.124 | 4.124 | 4.123 | 4.123 | | |
| P | 0.115 | 0.135 | | .126 | .124 | .126 | .126 | | |
| Q | 0.115 | 0.135 | | .135 | .135 | .135 | .135 | | |
| R | 0.240 | 0.260 | | .251 | .259 | .249 | .250 | | |
| S | 0.115 | 0.135 | | .122 | .121 | .122 | .120 | | |
| T | 0.178 | 0.198 | | .184 | .184 | .188 | .188 | | |
| U | 3.210 | 3.250 | | 3.233 | 3.230 | 3.234 | 3.232 | | |
| V | 0.230 | 0.250 | | .243 | .243 | .240 | .235 | | |
| W | 0.115 | 0.135 | | .123 | .126 | .122 | .124 | | |
| X | 0.308 | 0.313 | | .310 | 0.310 | 0.310 | 0.310 | | |
| Y | 0.760 | 0.765 | | .760 | 0.760 | 0.760 | 0.760 | | |
| Z | 0.352 | 0.372 | | 0.360 | 0.360 | 0.360 | 0.360 | | |
| AA | 0.470 | 0.530 | | .500 | .500 | .500 | .500 | | |
| AB | 0.615 | 0.635 | | .630 | .627 | 0.631 | 0.634 | | |
| AC | 0.053 | 0.073 | | .063 | .063 | 0.063 | 0.063 | | |
| AD | 0.240 | 0.260 | | .250 | .250 | .250 | .250 | | |
| AE | 1.500 | 1.520 | | 1.510 | 1.510 | 1.513 | 1.513 | | |
| AF | 0.115 | 0.135 | | .125 | .127 | .127 | .128 | | |
| AG | 0.240 | 0.280 | | .260 | .265 | .265 | .265 | | |
| AH | 0.240 | 0.260 | | .251 | 253 | .250 | .250 | | |
| AI | 2.000 | 2.020 | | 2.000 | 2.000 | 2.003 | 2.003 | | |
| AJ | 0.023 | 0.043 | | 0.033 | 0.033 | 0.033 | 0.033 | | |
| **Accept/Reject** | | | | | | | | | |

| Measured by: | RF |
|---|---|
| Date: | 07/12/15 |

| Audited by | |
|---|---|
| Date: | 08/01/03 |

| Rev | Date | Change | Revised by | Approved |
|---|---|---|---|---|
| A | | New Issue | RF | |
| B | 02.09.26 | Re-format; Added Rev. D | KJ | |
| C | 02.10.11 | Re-format; Added DT8682, DT8683, DT8684 | KJ | |
| D | 05.05.05 | Added dimension AI | KJ/RF | |
| E | 05.12.05 | Added dimension AJ | KJ/JLM | |

| DART AEROSPACE LTD | Work Order: | 35917 |
|---|---|---|
| | | |
| **Description:** Saddle, Aft Outboard | Part Number: | D2573 |
| | | |
| **Inspection Dwg:** D2573 Rev. E | | Page 1 of 1 |

Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

| | | | | Recorded Actual Dimensions | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Dim** | **Min** | **Max** | **Go/No Go Gauge** | #5 | #6 | #7 | #8 | **By** | **Date** |
| A | 0.438 | 0.443 | ~~DT8682~~ | 0.440 | 0.440 | 0.440 | 0.440 | | |
| B | 1.745 | 1.755 | | 1.750 | 1.750 | 1.750 | 1.750 | | |
| C | 3.495 | 3.505 | | 3.500 | 3.500 | 3.500 | 3.506 | | |
| D | 1.745 | 1.755 | 07/12/19 | 1.750 | 1.750 | 1.750 | 1.750 | | |
| E | 7.990 | 8.010 | | 8.000 | 8.000 | 7.999 | 7.998 | | |
| F | 0.490 | 0.510 | | 0.505 | 0.505 | 0.504 | 0.502 | | |
| G | 0.257 | 0.262 | ~~DT8683~~ | .258 | .258 | 0.259 | 0.259 | | |
| H | 0.375 | 0.380 | ~~DT8684~~ | .375 | .375 | 0.376 | 0.376 | | |
| I | 0.490 | 0.510 | | 0.505 | 0.504 | 0.502 | 0.502 | | |
| J | 1.174 | 1.184 | | 1.180 | 1.180 | 1.177 | 1.177 | | |
| K | 0.558 | 0.578 | | 0.571 | 0.570 | 0.567 | 0.569 | | |
| L | 1.174 | 1.184 | | 1.180 | 1.180 | 1.177 | 1.177 | | |
| M | 1.365 | 1.375 | | 1.370 | 1.370 | 1.369 | 1.369 | | |
| N | 2.495 | 2.505 | | 2.501 | 2.500 | 2.506 | 2.498 | | |
| O | 4.119 | 4.129 | | 4.124 | 4.124 | 4.121 | 4.123 | | |
| P | 0.115 | 0.135 | | .126 | .126 | 0.126 | 0.125 | | |
| Q | 0.115 | 0.135 | | 0.135 | 0.130 | 0.130 | 0.135 | | |
| R | 0.240 | 0.260 | | .251 | .251 | 0.250 | 0.247 | | |
| S | 0.115 | 0.135 | | 0.121 | 0.119 | 0.121 | 0.121 | | |
| T | 0.178 | 0.198 | | .188 | .184 | 0.188 | 0.188 | | |
| U | 3.210 | 3.250 | | 3.230 | 3.230 | 3.230 | 3.230 | | |
| V | 0.230 | 0.250 | | 0.235 | 0.235 | 0.234 | 0.234 | | |
| W | 0.115 | 0.135 | | 0.119 | 0.122 | 0.124 | 0.124 | | |
| X | 0.308 | 0.313 | | 0.310 | 0.310 | 0.310 | 0.310 | | |
| Y | 0.760 | 0.765 | | 0.762 | 0.760 | 0.760 | 0.760 | | |
| Z | 0.352 | 0.372 | | 0.364 | 0.365 | 0.364 | 0.364 | | |
| AA | 0.470 | 0.530 | | .500 | .500 | 0.500 | 0.500 | | |
| AB | 0.615 | 0.635 | | 0.629 | 0.631 | 0.630 | 0.628 | | |
| AC | 0.053 | 0.073 | | 0.063 | 0.063 | 0.063 | 0.063 | | |
| AD | 0.240 | 0.260 | | .250 | .250 | 0.245 | 0.246 | | |
| AE | 1.500 | 1.520 | | 1.511 | 1.512 | 1.512 | 1.512 | | |
| AF | 0.115 | 0.135 | | 0.128 | 0.125 | 0.128 | 0.133 | | |
| AG | 0.240 | 0.280 | | .265 | .265 | 0.265 | 0.260 | | |
| AH | 0.240 | 0.260 | | 0.245 | 0.248 | 0.247 | 0.246 | | |
| AI | 2.000 | 2.020 | | 2.002 | 2.001 | 2.001 | 2.002 | | |
| AJ | 0.023 | 0.043 | | 0.033 | 0.033 | 0.033 | 0.033 | | |
| **Accept/Reject** | | | | | | | | | |

| Measured by: | RF / JML |
|---|---|
| Date: | 07/12/17 / 07/12/19 |

| Audited by | KJ |
|---|---|
| Date: | 08/01/03 |

| Rev | Date | Change | Revised by | Approved |
|---|---|---|---|---|
| A | | New Issue | RF | |
| B | 02.09.26 | Re-format; Added Rev. D | KJ | |
| C | 02.10.11 | Re-format; Added DT8682, DT8683, DT8684 | KJ | |
| D | 05.05.05 | Added dimension AI | KJ/RF | |
| E | 05.12.05 | Added dimension AJ | KJ/JLM | |

| DART AEROSPACE LTD | Work Order: | 35917 |
|---|---|---|
| | | |
| **Description:** Saddle, Aft Outboard | Part Number: | D2573 |
| | | |
| **Inspection Dwg:** D2573 Rev. E | | Page 1 of 1 |

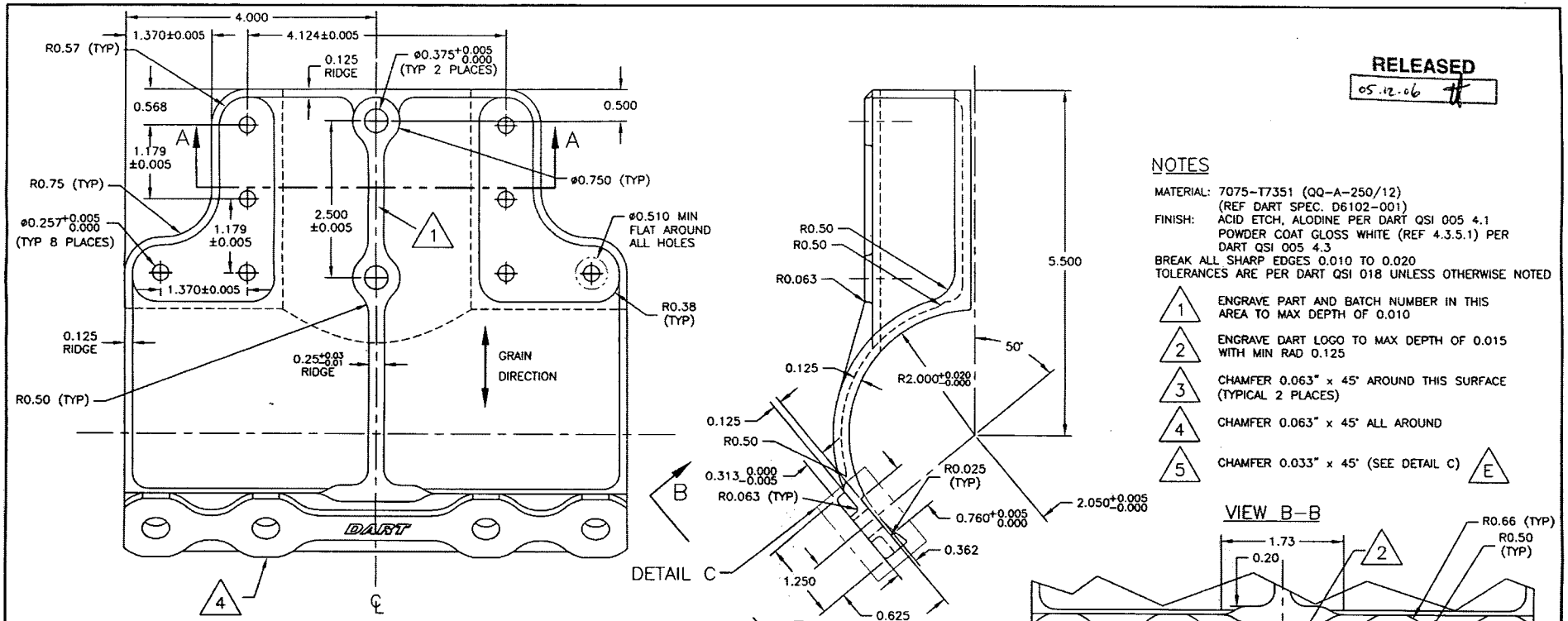
Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

| | | | | Recorded Actual Dimensions | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Dim | Min | Max | Go/No Go Gauge | #9 | #10 | #11 | #12 | By | Date |
| A | 0.438 | 0.443 | ~~DT8682~~ | 0.446 | .440 | .440 | .440 | | |
| B | 1.745 | 1.755 | | 1.750 | 1.750 | 1.750 | 1.750 | | |
| C | 3.495 | 3.505 | | 3.500 | 3.500 | 3.500 | 3.500 | | |
| D | 1.745 | 1.755 | | 1.750 | 1.750 | 1.750 | 1.750 | | |
| E | 7.990 | 8.010 | | 7.998 | 7.998 | 7.998 | 7.998 | | |
| F | 0.490 | 0.510 | | 0.503 | .501 | .501 | .500 | | |
| G | 0.257 | 0.262 | ~~DT8683~~ | 0.258 | 0.258 | 0.259 | .258 | | |
| H | 0.375 | 0.380 | ~~DT8684~~ | 0.377 | 0.377 | 0.376 | .378 | | |
| I | 0.490 | 0.510 | | 0.501 | 0.500 | 0.502 | .568 | | |
| J | 1.174 | 1.184 | | 1.177 | 1.177 | 1.177 | 1.177 | | |
| K | 0.558 | 0.578 | | 0.568 | 0.568 | 0.569 | 0.569 | | |
| L | 1.174 | 1.184 | | 1.177 | 1.177 | 1.177 | 1.180 | | |
| M | 1.365 | 1.375 | | 1.367 | 1.367 | 1.367 | 1.367 | | |
| N | 2.495 | 2.505 | | 2.499 | 2.500 | 2.500 | 2.500 | | |
| O | 4.119 | 4.129 | | 4.124 | 4.123 | 4.123 | 4.124 | | |
| P | 0.115 | 0.135 | | 0.126 | 0.125 | 0.125 | .125 | | |
| Q | 0.115 | 0.135 | | 0.135 | 0.135 | 0.135 | .135 | | |
| R | 0.240 | 0.260 | | 0.249 | 0.249 | 0.248 | .248 | | |
| S | 0.115 | 0.135 | | 0.121 | 0.122 | 0.123 | .125 | | |
| T | 0.178 | 0.198 | | 0.188 | 0.188 | 0.188 | 0.188 | | |
| U | 3.210 | 3.250 | | 3.230 | 3.230 | 3.230 | 3.233 | | |
| V | 0.230 | 0.250 | | 0.236 | 0.238 | 0.238 | .238 | | |
| W | 0.115 | 0.135 | | 0.119 | 0.122 | 0.121 | .120 | | |
| X | 0.308 | 0.313 | | .310 | .312 | .312 | .310 | | |
| Y | 0.760 | 0.765 | | .760 | .767 | .762 | .762 | | |
| Z | 0.352 | 0.372 | | 0.365 | .365 | .361 | .361 | | |
| AA | 0.470 | 0.530 | | 0.500 | 0.500 | 0.500 | 0.500 | | |
| AB | 0.615 | 0.635 | | 0.630 | .630 | .630 | .630 | | |
| AC | 0.053 | 0.073 | | 0.063 | 0.063 | 0.063 | 0.063 | | |
| AD | 0.240 | 0.260 | | 0.247 | 0.246 | 0.247 | .245 | | |
| AE | 1.500 | 1.520 | | 1.512 | 1.512 | 1.512 | 1.513 | | |
| AF | 0.115 | 0.135 | | 0.126 | 0.136 | 0.128 | .128 | | |
| AG | 0.240 | 0.280 | | 0.260 | 0.260 | 0.260 | .260 | | |
| AH | 0.240 | 0.260 | | 0.248 | 0.248 | 0.247 | .247 | | |
| AI | 2.000 | 2.020 | | 2.001 | 2.001 | 2.001 | 2.003 | | |
| AJ | 0.023 | 0.043 | | .033 | .033 | .033 | .023 | | |
| Accept/Reject | | | | | | | | | |

| Measured by: | MR / RF |
|---|---|
| Date: | 07/12/19 / 07/12/20 |

| Audited by | SD |
|---|---|
| Date: | 08/07/03 |

| Rev | Date | Change | Revised by | Approved |
|---|---|---|---|---|
| A | | New Issue | RF | |
| B | 02.09.26 | Re-format; Added Rev. D | KJ | |
| C | 02.10.11 | Re-format; Added DT8682, DT8683, DT8684 | KJ | |
| D | 05.05.05 | Added dimension AI | KJ/RF | |
| E | 05.12.05 | Added dimension AJ | KJ/JLM | |




RELEASED
05.12.06

## NOTES

MATERIAL: 7075-T7351 (QQ-A-250/12)
(REF DART SPEC. D6102-001)
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
BREAK ALL SHARP EDGES 0.010 TO 0.020
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

1. ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX DEPTH OF 0.010
2. ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD 0.125
3. CHAMFER 0.063" x 45° AROUND THIS SURFACE (TYPICAL 2 PLACES)
4. CHAMFER 0.063" x 45° ALL AROUND
5. CHAMFER 0.033" x 45° (SEE DETAIL C) E

| | | |
|---|---|---|
| E | 05.07.13 | ADD CHAMFER ON RIDGE NOTE 5 |
| D | 02.09.06 | ADD RIDGES; TIGHTEN TOLERANCES |
| C | 99.10.22 | INCORP. DEO 9123/9079/9102 ADD DIMENSIONS PER TSR A1177 |
| B | 96.12.02 | ADD GRAIN DIR., 0.438 WAS 0.425 |
| A | 96.09.16 | NEW ISSUE |



| | | | |
|---|---|---|---|
| DESIGN: DS | DRAWN BY: PH | DART AEROSPACE LTD. MARKHAM, ONTARIO, CANADA | |
| CHECKED | APPROVED | DRAWING NO. D2573 | REV. E |
| DATE: 05.07.13 | | TITLE: OUTER AFT SADDLE | SCALE: 2:3 |